Date: User: Friday, 9/15/2006 11:55:41 AM

Kim Johnston

**Process Sheet** 

Customer

: CU-DAR001 Dart Helicopters Services

Job Number **Estimate Number**  : 28611

P.O. Number

: 11153

:NIA

This Issue

: 9/15/2006

S.O. No. : NIA

Prsht Rev.

: IVIA First Issue : NIA **Previous Run** 

: MACHINED PARTS

Type

**Part Number** 

: D32333

: OUTSIDE WASHER

**Drawing Number Project Number** 

**Drawing Name** 

: D3233 REV B : N/A

**Drawing Revision** Material

**Due Date** 

: NIA : 9/30/2006

Qty:

Um:

Written By

Checked & Approved By

Comment

: Est. B 05.03

Added Powder Coat

KJ/JLM

**Additional Product** 

Job Number:



Seq. #:

**Machine Or Operation:** 

Description:

1.0

M1020TR2000W500

1020-1025 Round Tube



Total: 15.7500 f(s)

Comment: Qty.: (0.7875 f(s)/Unit 1020-1025 Round Tube

Material: AISI 1020-1025 Seamless Tubing 2" x 0.500" wall

(M1020TR2.000W.500) Identify for D3233-3

Batch: **M** 17015

HARDINGE CNC LATHE SMALL



Comment: HARDINGE CNC LATHE SMALL

Turn as per Folio FA518 and Dwg D3233

Deburr

06/09/25

J.F. 06/09/21

3.0

2.0

QC2

INSPECT PARTS AS THEY COME OFF



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

4.0

QC8

SECOND CHECK



Comment: SECOND CHECK

06/04/

5.0

POWDER COATING

POWDER COATING

M18052

Comment: POWDER COATING

Powder Coat Fire Red (Ref: 4.3.5.10) as per QSI 005 4.3

 $\partial \mathcal{Y}$ 

# **Dart Aerospace Ltd**

| W/O: |      | WORK ORDER C     |  |                                       |     |                               |                          |
|------|------|------------------|--|---------------------------------------|-----|-------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE |  | Date                                  | Qty | Approval Chief Eng / Prod Mgr | Approval<br>QC Inspector |
|      |      |                  |  |                                       |     |                               |                          |
|      |      |                  |  |                                       |     |                               |                          |
| · ·- |      |                  |  |                                       | -   |                               |                          |
|      |      |                  |  |                                       |     |                               |                          |
|      |      |                  |  |                                       |     |                               |                          |
|      |      |                  |  | · · · · · · · · · · · · · · · · · · · |     |                               |                          |

| Part No: | PAR #: | Fault Category: | NCR: Yes No DQA: | Date: <u>⊘                                   </u> |
|----------|--------|-----------------|------------------|---|
|          |        |                 | QA: N/C Closed:  | Date:   |

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                      |                              |                |                        |                       |                          |  |  |
|------|------|----------------------------------|----------------------|------------------------------|----------------|------------------------|-----------------------|--------------------------|--|--|
|      |      | Description of NC                |                      | Corrective Action Section B  |                |                        |                       | A                        |  |  |
| DATE | STEP | Section A                        | Initial<br>Chief Eng | Action Description Chief Eng | Sign &<br>Date | Verification Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |  |  |
| 0602 | 20   | facts probed                     |                      |                              |                |                        |                       |                          |  |  |
|      | 0    |                                  |                      |                              |                |                        |                       |                          |  |  |
|      |      |                                  |                      |                              |                |                        |                       |                          |  |  |
|      | -    |                                  |                      |                              |                |                        |                       |                          |  |  |
|      | ,    |                                  |                      |                              |                |                        |                       |                          |  |  |
|      |      |                                  |                      |                              |                |                        |                       |                          |  |  |

NOTE: Date & initial all entries

Date: Friday, 9/15/2006 11:55:41 AM User: Kim Johnston **Process Sheet** Drawing Name: OUTSIDE WASHER Customer: CU-DAR001 Dart Helicopters Services Part Number: D32333 Job Number: 28611 Job Number: Seq. #: Description: **Machine Or Operation:** INSPECT POWDER COAT/CHEMICAL CONVERSION 6.0 QC3 Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION PACKAGING RESOURCE #1 7.0 PACKAGING 1 Comment: PACKAGING RESOURCE #1 Identify and Stock Location: FINAL INSPECTION/W/O RELEASE QC21 8.0

Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



U 66-11-01

## **Dart Aerospace Ltd**

| DuitAc  | ·ospacc | Ltu                            |            |                    |               |                                       |                               |                          |
|---------|---------|--------------------------------|------------|--------------------|---------------|---------------------------------------|-------------------------------|--------------------------|
| W/O:    |         |                                | W          | ORK ORDER CHANG    | GES           |                                       |                               |                          |
| DATE    | STEP    | PROCEDURE CHANGE               |            |                    | Ву            | Date Qty                              | Approval Chief Eng / Prod Mgr | Approval<br>QC Inspector |
|         |         |                                |            |                    |               |                                       |                               |                          |
|         |         |                                |            | ·                  |               |                                       |                               |                          |
|         |         |                                |            |                    |               |                                       |                               |                          |
| Part No |         | PAR #:                         | Fault Cate | gory:              |               | No                                    |                               |                          |
| NCR:    |         |                                | WORK ORD   | ER NON-CONFORM     |               | · · · · · · · · · · · · · · · · · · · |                               |                          |
| DATE    | STEP    | Description of NC<br>Section A | Initial    | Action Description | tion B Sign & | Verification Section C                | Approval<br>Chief Eng         | Approval<br>QC Inspector |
|         |         |                                | Chief Eng  | Chief Eng          | Date          |                                       |                               |                          |
|         |         |                                |            |                    |               |                                       |                               |                          |
|         |         |                                |            |                    |               |                                       |                               |                          |
|         |         |                                |            |                    |               |                                       |                               |                          |
|         |         |                                |            |                    |               |                                       |                               |                          |
|         |         |                                |            |                    | \$.           |                                       |                               |                          |
|         |         |                                |            |                    |               |                                       |                               |                          |

NOTE: Date & initial all entries

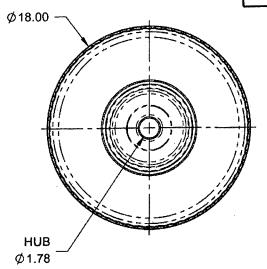
| DART AEROSPACE LTD           | Work Order:  | 28611       |
|------------------------------|--------------|-------------|
| Description: Outside Washer  | Part Number: | D3233-3     |
| Inspection Dwg: D3233 Rev: B |              | Page 1 of 1 |

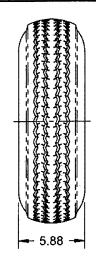
| FIRST ARTICLE INSPECTION CHECKLIST |               |                     |            |        |                      |         |                                       |
|------------------------------------|---------------|---------------------|------------|--------|----------------------|---------|---------------------------------------|
|                                    |               | X First Artic       | cle        | Prote  | otype                |         |                                       |
| Drawing<br>Dimension               | Tolerance     | Actual<br>Dimension | Accept     | Reject | Method of Inspection | Con     | nments                                |
| 0.620                              | +0.000/-0.020 | . 6 1911            |            |        |                      | ,       |                                       |
| 0.265                              | +0.005/-0.000 | , 268"              | V,         |        |                      |         |                                       |
| Ø1.378                             | +/-0.010      | 01.377"             |            |        |                      |         |                                       |
| Ø1.190                             | +/-0.005      | 01,189"             |            |        |                      |         | , , , , , , , , , , , , , , , , , , , |
| Ø2.00                              | +/-0.030      | 01,990              |            |        |                      |         |                                       |
|                                    |               |                     |            |        |                      |         |                                       |
|                                    |               |                     | **;        |        |                      |         |                                       |
|                                    |               |                     |            |        |                      |         |                                       |
|                                    |               |                     |            |        |                      |         |                                       |
|                                    |               |                     |            |        |                      |         |                                       |
|                                    |               |                     |            |        |                      |         |                                       |
|                                    |               |                     |            |        |                      |         |                                       |
| easured by:                        | J.F.          | Audited by:         | <b>3</b> 6 |        | Prototype Ap         | proval: | N/A                                   |
| Date:                              | 06/09/21      | Date:               | 06.09.     | 21     |                      | Date:   | N/A                                   |

|     |          | 1,1-0     |            |                    |
|-----|----------|-----------|------------|--------------------|
| Rev | Date     | Change    | Revised by | Approv <i>e</i> /d |
| Α   | 05.04.26 | New Issue | KJ/JLM 🛠   |                    |
|     |          |           |            |                    |

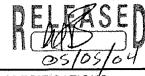


|        | 1    |          |                                       |  |
|--------|------|----------|---------------------------------------|--|
| DESIGN | 13   | DRAWN BY | DART AEROSPAC<br>HAWKESBURY, ONTARIO, | and the second s |
| CHECK  | Ēβ   | APPROXED | DRAWING NO.                           | REV. B   |
| -      | *    | eap      | D3233                                 | SHEET 1 OF 3   |
| DATE   |      |          | TITLE                                 | SCALE  |
|        | 05.0 | 3.08     | WHEEL ASSEMBLY                        | 1:1  |
| <br>А  | 0:   | 5.02.18  | NEW ISSUE                             |  |
| В      | 0    | 5.03.08  | ADDED BEARING SEALS                   |  |



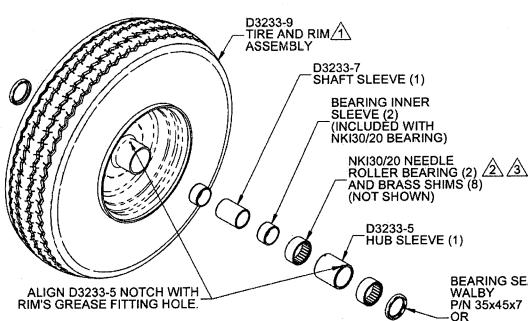


1



| WHEEL SPECIFICATIONS                |                      |                                |  |  |  |  |
|-------------------------------------|----------------------|--------------------------------|--|--|--|--|
| SIZE                                | MAXIMUM<br>LOAD      | MAXIMUM<br>INFLATATION<br>LOAD |  |  |  |  |
| TIRE: 19.0 x 5.8<br>RIM: 5.70 x 8.0 | 910 LBS<br>(RANGE C) | 90 PSI*                        |  |  |  |  |

<sup>\*</sup> MANUFATURER'S RECOMENDATIONS ARE 75 PSI FOR HIGH SPEED USE.



## D3233-041 WHEEL ASSEMBLY

#### NOTES:

1) POSSIBLE SUPPLIER: McMASTER-CARR, P/N 8353T74
2) POSSIBLE SUPPLIER: GENERAL BEARING
3) PRESS FIT NEEDLE ROLLER BEARINGS INTO RIM HUB WITH
(4) 0.5 X 0.75 X 0.004 BRASS SHIMS PER BEARING, (1) AT EACH QUADRANT.
4) POSSIBLE SUPPLIER: GENERAL BEARING
5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

6) ALL DIMENSIONS ARE IN INCHES

**BEARING SEAL** WALBY P/N 35x45x7

CR 35x45x7 HMS4 R P/N 13927 SHOP COPY

(2 PLACES) RETURN TO

ENGINEERING UNCONTROLLED COP

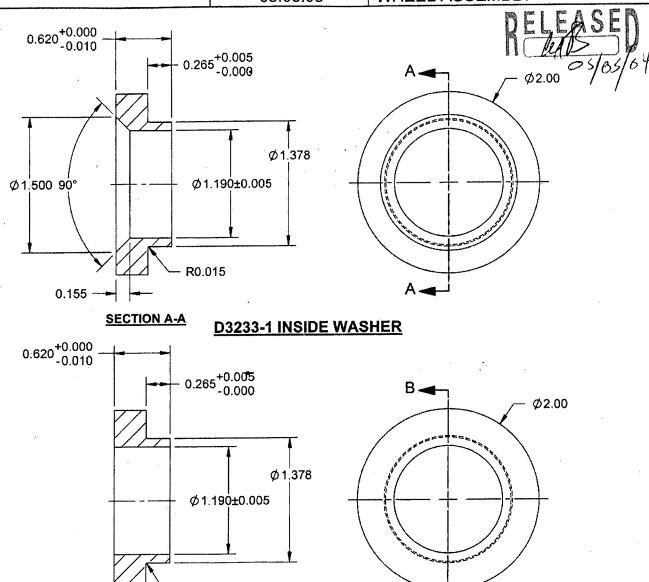
SUBJECT TO AMENDMEN WITHOUT NOTICE

WORK ORDER

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| DESIGN  | DRAWN BY | DART AEROSPAC<br>HAWKESBURY, ONTARIO, |                        |
|---------|----------|---------------------------------------|------------------------|
| CHECKED | AMPROVED | D3233                                 | REV. B<br>SHEET 2 OF 3 |
| DATE 05 | .03.08   | TITLE WHEEL ASSEMBLY                  | SCALE<br>1:1           |



## **D3233-3 OUTSIDE WASHER**

SHOP COPY RETURN TO ENGINEERING

- 1) MATERIAL: AISI 1020-1025 ROUND TUBING PER MIL-T-5066 OR ASTM A513-00 TROLLED COPY

  MT1020 SRA OR AMS 5075 OR AMS 5077, COLD DRAWN, SEAMLES TO AMENDMENT

  (REF. DART SPEC. M1020TR)

  2) FINISH: POWDER COAT FIRE RED (REF. 4.3.5.10) PER DART QSI 005 4.3

  3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

  4) ALL DIMENSIONS ARE IN INCHES

  5) BREAK ALL SHAPP EDOCOCOORD

**SECTION B-B** 

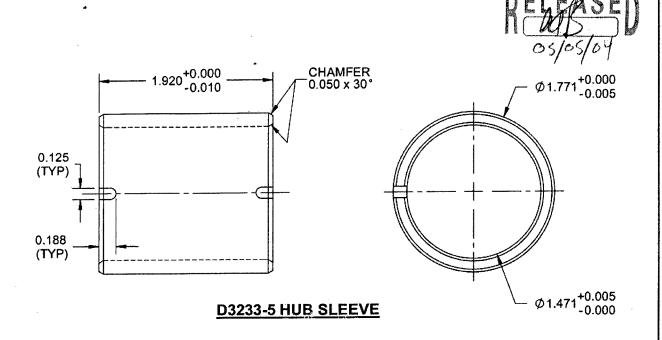
4) ALL DIMENSIONS ARE IN INCHES 5) BREAK ALL SHARP EDGES 0.005 TO 0.010

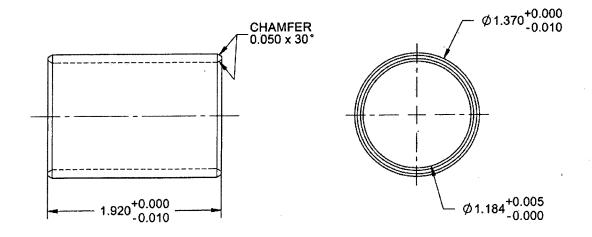
R0.015

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| DESIGN  | DRAWN BY | DART AEROSPAC<br>HAWKESBURY, ONTARIO, |                        |
|---------|----------|---------------------------------------|------------------------|
| CHECKED | APPROVED | DRAWING NO. D3233                     | REV. B<br>SHEET 3 OF 3 |
| DATE .  | .03.08   | TITLE WHEEL ASSEMBLY                  | SCALE<br>1:1           |





### D3233-7 SHAFT SLEEVE

SHOP COPY RETURN TO

**NOTES:** 

ENGINEERING 1) MATERIAL: AISI 1020-1025 ROUND TUBING PER MIL-T-5066 OR ASTM A5.13-000 OLLED COPY

MT1020 SRA OR AMS 5075 OR AMS 5077, COLD DRAWN, SEAMLESS
(REF. DART SPEC. M1020TR)

2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

3) ALL DIMENSIONS ARE IN INCHES
4) BREAK ALL SHARP EDGES 0.010 TO 0.030

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